



General

Guideline Title

Best evidence statement (BEST). The effects of music therapy on well-being in pediatric inpatients.

Bibliographic Source(s)

Cincinnati Children's Hospital Medical Center. Best evidence statement (BEST). The effects of music therapy on well-being in pediatric inpatients. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2012 Feb 16. 6 p. [13 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The strength of the recommendation (strongly recommended, recommended, or no recommendation) and the quality of the evidence (1a to 5b) are defined at the end of the "Major Recommendations" field.

It is strongly recommended that both active and passive music interventions be facilitated by board-certified music therapists (and music medicine be made available by medical personnel) at the bedside for hospitalized pediatric patients to improve physical, emotional, and social well-being during their hospital stay (Treurnicht Naylor et al., 2011 [1a]; Klassen et al., 2008 [1a]; Mrazova & Celec, 2010 [1b]; Nguyen et al., 2010 [2a]).

Definitions:

Table of Evidence Levels

Quality Level	Definition
1a [†] or 1b [†]	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5a or 5b	General review, expert opinion, case report, consensus report, or guideline
5	Local consensus

†a = good quality study; b = lesser quality study

Table of Recommendation Strength

Strength	Definition
It is strongly recommended that... It is strongly recommended that... not...	There is consensus that benefits clearly outweigh risks and burdens (or vice versa for negative recommendations).
It is recommended that... It is recommended that... not...	There is consensus that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation...	

Note: See the original guideline document for the dimensions used for judging the strength of the recommendation.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Pediatric conditions requiring hospitalization

Guideline Category

Treatment

Clinical Specialty

Family Practice

Pediatrics

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To evaluate if pediatric inpatients who receive active and/or passive music therapy and music medicine (in addition to standard care) compared to standard medical care alone, experience improved emotional, social and physical well-being during their current hospitalization

Target Population

Hospitalized inpatients receiving care in a pediatric institution

Interventions and Practices Considered

- Music therapy
 - Active
 - Passive
- Music medicine

Major Outcomes Considered

Emotional, social and physical well-being

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Search Strategy

- Terms: Music therapy, medical music therapy, pediatric music therapy, music therapy and: pediatrics, children, quality of life, mood, well-being, emotions, social state, anxiety, pediatrics, hospitalized children, pain, and inpatients
- Databases: Medline/PubMed, CINAHL, PsycINFO, Cochrane Library, Alt Healthwatch, Google Scholar, & NACRHI
- Last date of search: 4/19/2011
- No filters or limits were used.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Table of Evidence Levels

Quality Level	Definition
1a [†] or 1b [†]	Systematic review, meta-analysis, or meta-synthesis of multiple studies
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4a or 4b	Weak study design for domain

Quality Level	Definition
5	Local consensus

[†]a = good quality study; b = lesser quality study

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Table of Recommendation Strength

Strength	Definition
It is strongly recommended that... It is strongly recommended that... not...	There is consensus that benefits clearly outweigh risks and burdens (or vice versa for negative recommendations).
It is recommended that... It is recommended that... not...	There is consensus that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation...	

Note: See the original guideline document for the dimensions used for judging the strength of the recommendation.

Cost Analysis

- In one study, music therapy had a significantly positive effect for level of sleep/sedation ($p < .001$) and length of sleep/sedation ($p < .001$) in comparison to the chloral hydrate group providing a safe, non-pharmacological and cost-effective alternative.
- A cost-effective analysis for music therapy procedural support indicated success in eliminating patient sedation, reducing procedural time and in the number of medical professionals present during electrocardiograms (ECGs), computed tomography (CT) scans, intravenous (IV) starts, X-rays, ventilator extubations, and electroencephalograms (EEGs).

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

This Best Evidence Statement has been reviewed against quality criteria by 2 independent reviewers from the Cincinnati Children's Hospital Medical Center (CCHMC) Evidence Collaboration.

Evidence Supporting the Recommendations

References Supporting the Recommendations

Klassen JA, Liang Y, Tjosvold L, Klassen TP, Hartling L. Music for pain and anxiety in children undergoing medical procedures: a systematic review of randomized controlled trials. *Ambul Pediatr*. 2008 Mar-Apr;8(2):117-28. [PubMed](#)

Mrazova M, Celec P. A systematic review of randomized controlled trials using music therapy for children. *J Altern Complement Med*. 2010 Oct;16(10):1089-95. [PubMed](#)

Nguyen TN, Nilsson S, Hellstrom AL, Bengtson A. Music therapy to reduce pain and anxiety in children with cancer undergoing lumbar puncture: a randomized clinical trial. *J Pediatr Oncol Nurs*. 2010 May-Jun;27(3):146-55. [PubMed](#)

Treurnicht Naylor K, Kingsnorth S, Lamont A, McKeever P, Macarthur C. The effectiveness of music in pediatric healthcare: a systematic review of randomized controlled trials. *Evid Based Complement Alternat Med*. 2011;2011:464759. [PubMed](#)

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Improved emotional, social and physical well-being

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

This Best Evidence Statement addresses only key points of care for the target population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This Best Evidence Statement does not preclude using care modalities proven efficacious in studies published subsequent to the current revision of this document. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Audit Criteria/Indicators

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2012 Feb 16

Guideline Developer(s)

Cincinnati Children's Hospital Medical Center - Hospital/Medical Center

Source(s) of Funding

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

Group/Team Members: Brian Schreck, MA, MT-BC, Coordinator/Music Therapist, Department of Child Life & Integrative Care; Mary Ellen Meier, MSN, RN, CPN, Evidence-Based Practice Mentor-Center for Professional Excellence & Business Integration Research & Evidence-Based Practice

Financial Disclosures/Conflicts of Interest

No financial conflicts of interest were found.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

Availability of Companion Documents

The following are available:

- Judging the strength of a recommendation. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Jan. 1 p. Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .
- Grading a body of evidence to answer a clinical question. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 1 p. Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .
- Table of evidence levels. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Feb 29. 1 p. Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

In addition, suggested process or outcome measures are available in the [original guideline document](#) .

Patient Resources

None available

NGC Status

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